Flight Inspection made by Aerodata   . . .

. . . Supports your Safety.

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FIS Projects since IFIS 2006:

— 2006: Delivery of a new flight inspection system with integration into a Beech King Air 350 with Pro Line 21 avionic system
Client: Flight Calibration Services GmbH, Germany

— 2007: Delivery of a new flight inspection system with integration into Cessna Citation X
Client: HCAA, Greece

— 2007: Delivery of a new flight inspection system with integration into Lear Jet 31a
Client: Argentinean Air Force

FIS Projects since IFIS 2006:

— 2007: Delivery of a new flight inspection system with integration into Beech 300 aircraft
Client: AENA Desarrollo Internacional, Spain

— 2007: Upgrade of a semi-automatic SDS-SAFIS (Sierra Data Systems) installed in Beech 1900 to a modern automatic flight inspection system AD-AFIS.
Client: Egypt Air Force

— 2007: Delivery of an AeroFIS for integration into DHC-6 De Havilland Twin Otter
Client: ECAA Ethiopian Civil Aviation Authority

FIS Projects since IFIS 2006:

— Within 2008: Delivery of AeroFIS with integration into two Beech King Air B200
Client: Civil Aviation Authority, Pakistan

— Within 2008: Delivery of two AeroFIS with integration into Cessna Citation II
Client: Turkish Air Force

— Within 2008: Delivery of two AeroFIS for integration into Beech King Air B200 / 350ER
Client: Cobham Flight Inspection

FIS Projects since IFIS 2006:

— Within 2008: Delivery of one AeroFIS with integration into Rockwell 690B Turbo Commander
Client: INAC, Venezuela

— Within 2008: Delivery of one AeroFIS with integration into Beech King Air B350
Client: Seda Financial Holdings, Kazakhstan

— Within 2008: delivery of an AeroFIS with integration into LearJet 31a
Client: DGAC Indonesia

Here could be your aircraft!

— For discussion of details come to the Aerodata booth #22 in the exhibition hall…

AeroFIS Features

Introduction | System Features | AeroFIS Software

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Customized Flight Inspection Systems

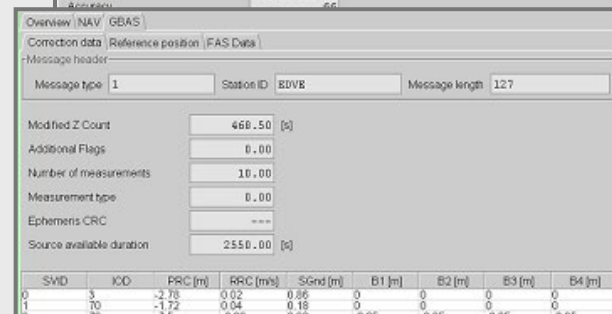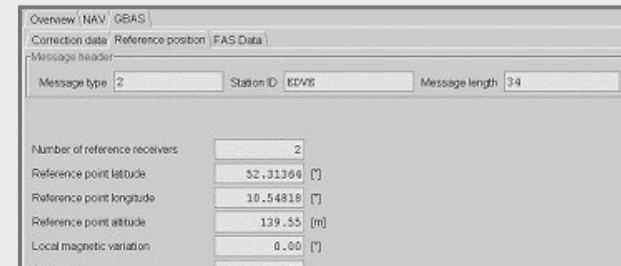# Customized Flight Inspection Systems
- Exclusive Design -

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GBAS Capability

✓ Full GBAS flight inspection capability available for AeroFIS

    ✓ Type 1 Messages (Correction Data)

    ✓ Type 2 Messages (Integrity Data)

    ✓ Type 4 Messages (FAS Data)

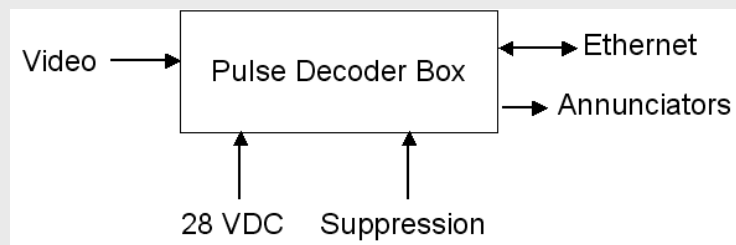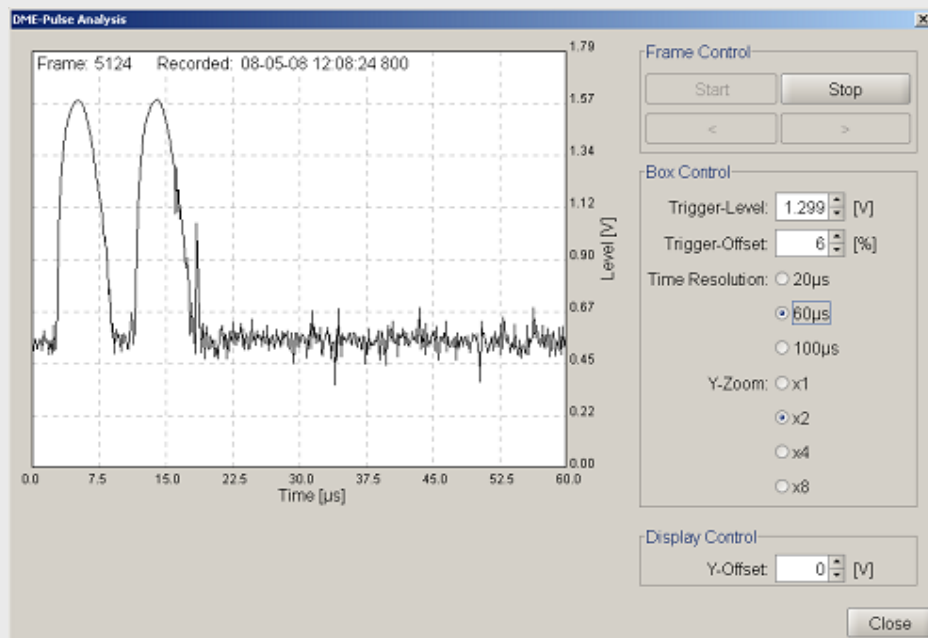✓ GNSS Landing Unit: Rockwell Collins GNLU 925/930

✓ VDB Receiver: AD-VDB9009-0100
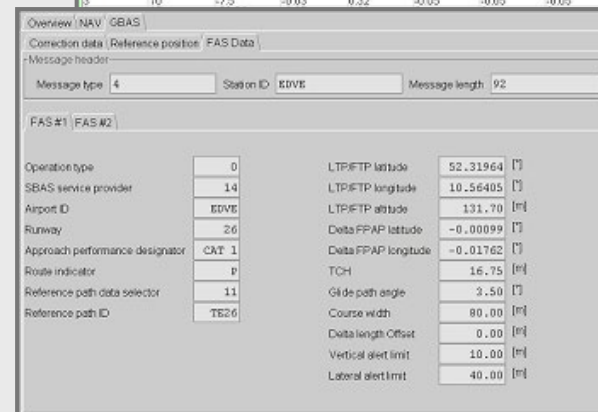
For details refer to Technical Presentation on Wednesday, 25th June, 09:30
"Flight Inspecting Ground Based Augmentation Systems (GBAS)", Thorsten Heinke

# Pulse Decoder Box

— **Detailed Analysis of Pulsed Signals:**

    ✓ DME

    ✓ TACAN

    ✓ SSR Mode A, C, S ,

       military and customer specific

    ✓ TCAS

    ✓ Multipath effects

For details refer to Technical Presentation on Thursday, 26th June, 09:30
"Monitoring Pulse Based Navigation Signals in Flight", Rolf Seide

Moving Facility Calibration

— Calibration of ship TACAN while in motion

— Online compensation of ship bank, pitch and heading
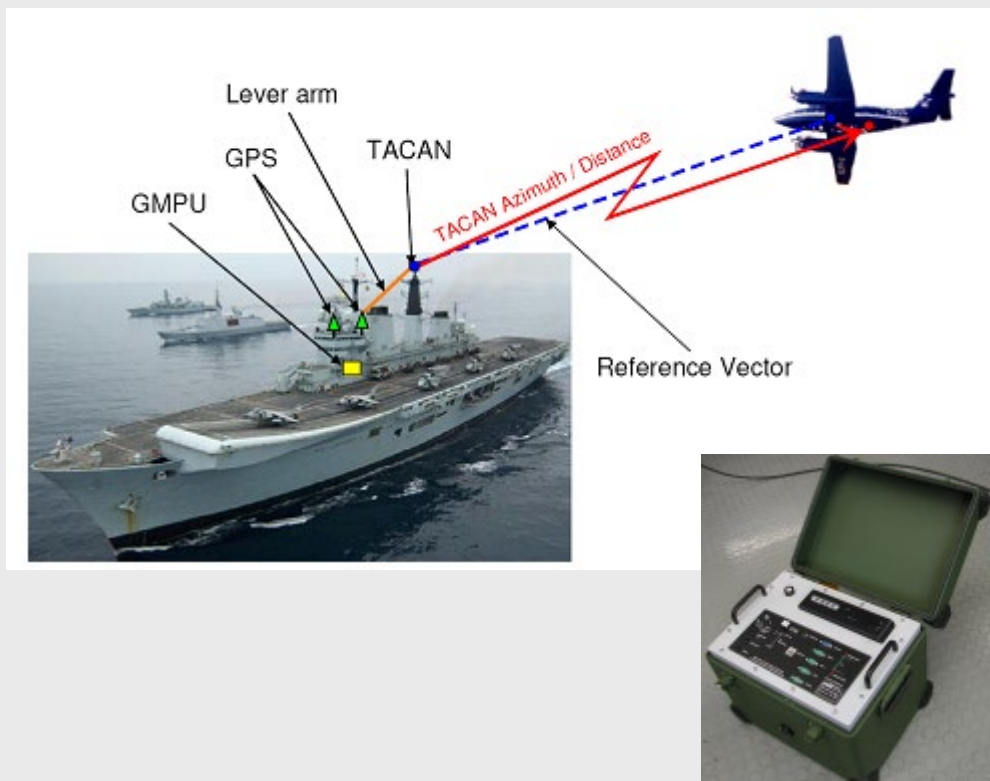
RF Analysis Modules for AeroFIS

The AeroFIS functionality may be enhanced by the following modules:

— Automatic Oscilloscope and Spectrum Analyzer measurements

— All Graphs are recorded together with flight inspection data for synchronized replay

— Replay can be done on any office PC or laptop

— Radio Frequency Interference (EMI) detection via integrated Advanced Spectrum Analysis functions

— Automatic Receiver Calibration

Waygenerator

— A Waygenerator calculates the shortest path to intercept the next procedure

— Reduced flight time

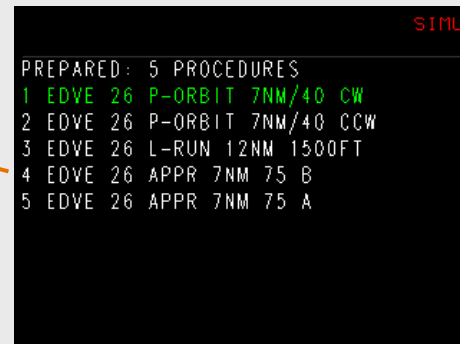— Calculated path can be updated any time by pushbuttons in pilots control yoke

This feature makes the flight inspection aircraft a reliable partner for Air Traffic Controllers.

Optional: Visualisation on a ground ATC Laptop via datalink (Satcom)
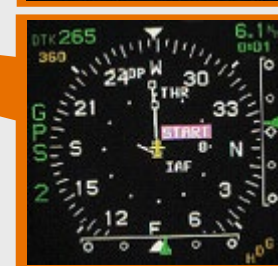
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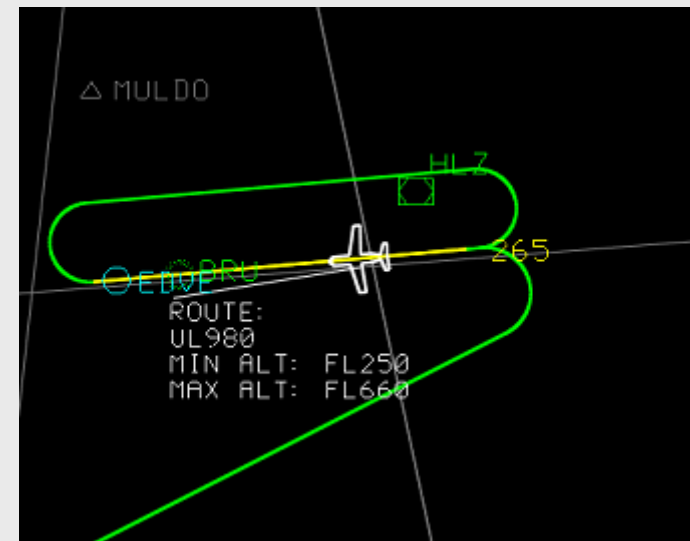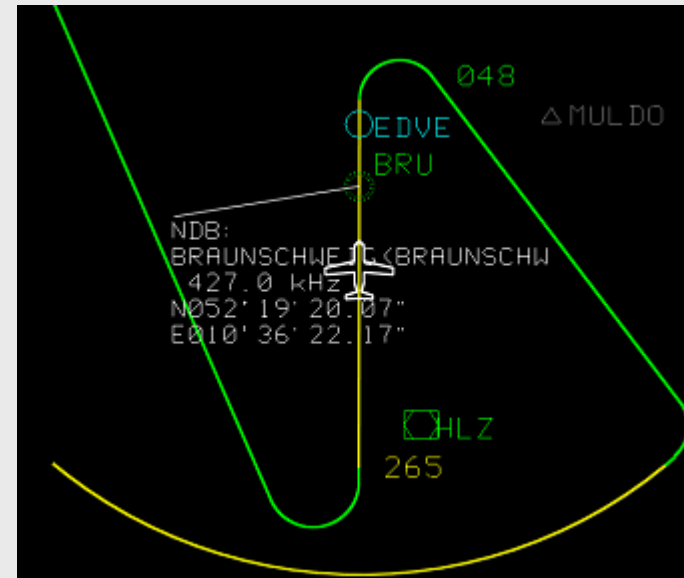
Cockpit Information Display

— Real Moving Map controlled by the Flight Inspection System

— Map based on Jeppesen Database

— Overlaid Flight Inspection Path

— Full situational awareness during flight inspection

— Flight List Display:
Prepared Flights / Completed Flights
→ improved Crew Communication

— Reduced workload for pilots and flight inspector

EDVE 26 P-ORBIT 10NM/40°CW

```
PREPARED: 5 PROCEDURES
1 EDVE 26 P-ORBIT 7NM/40 CW
2 EDVE 26 P-ORBIT 7NM/40 CCW
3 EDVE 26 L-RUN 12NM 1500FT
4 EDVE 26 APPR 7NM 75 B
5 EDVE 26 APPR 7NM 75 A
```

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Flight Guidance on Cockpit EFIS

— The AeroFIS provides an interface to the primary EFIS or a dedicated FIS EHSI in the cockpit for flight guidance.

— AeroFIS can be coupled to the Autopilot for automatic flying measurement procedures.

— The following procedures are supported: approach, offset approach, level flight, radial and orbit flights.
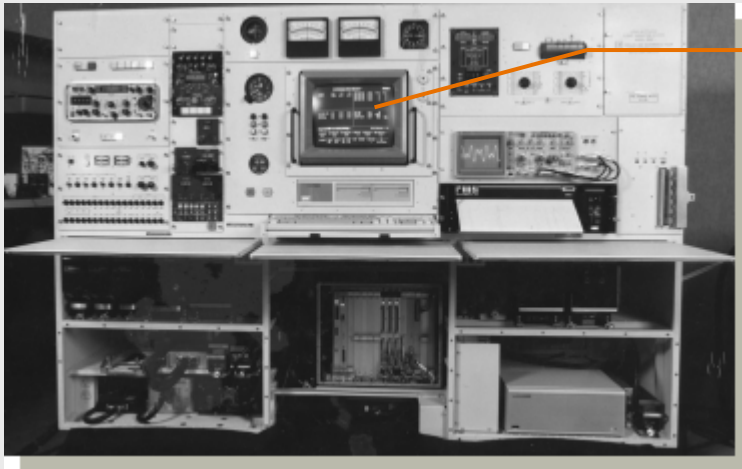
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Ground Support Equipment

— Aerodata provides Ground Support Equipment for different levels of testing, maintenance and calibration of AeroFIS equipment

— Full automatic testing, calibration and report generation of AeroFIS components.
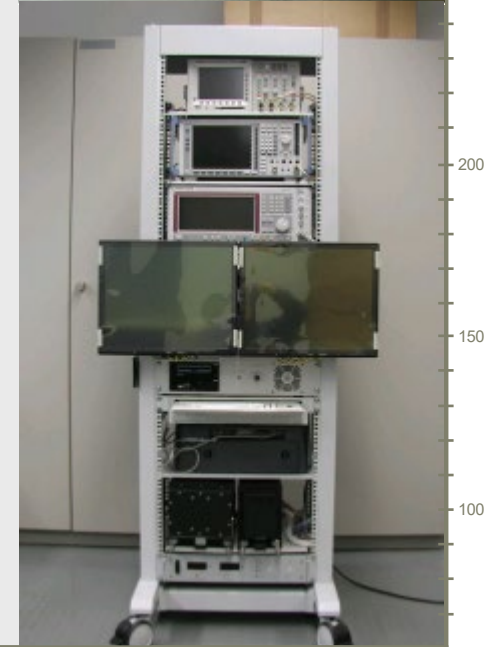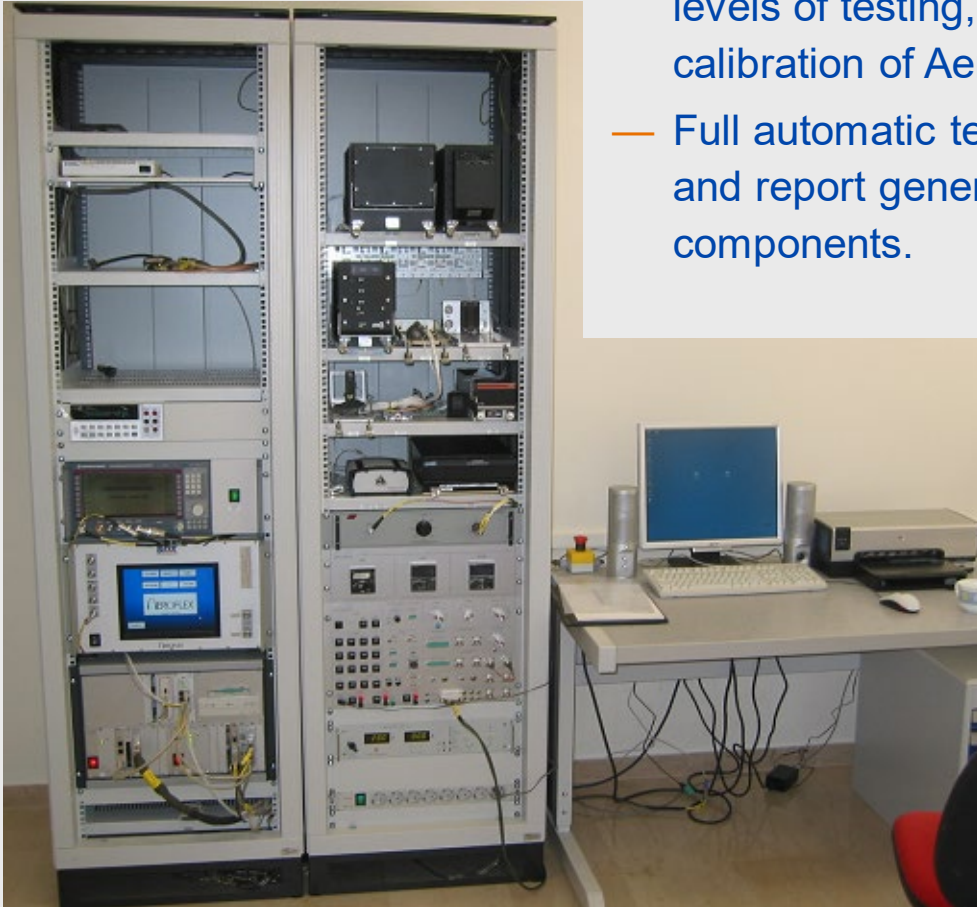
Upgrade from Sierra Data Systems to AeroFIS

Semi Automatic Flight Inspection System Model 8512

Upgraded System based on AeroFIS Technology

— Rack structure remain unchanged

— FI-Receivers remain unchanged

— New PDGPS Position Reference

— New Computers with AeroFIS Graphical User Interface

— Situation Awareness Windows (PFD, MFD, Moving Map)

— New Display and Color Printer

Graphical User Interface of AeroFIS

— AeroFIS is controlled via a windows based user interface, which allows for rapid familiarization with the Flight Inspection system and ease of use.

— Two screens are employed, one for command and control and the other for graphics and data analysis.

— In case of a display failure AeroFIS can be operated in single display mode

— Replay of flight inspection data on normal laptop PC

Night Vision GUI

— By just a press of a function key the graphical user interface
can be switched for Night Operation:
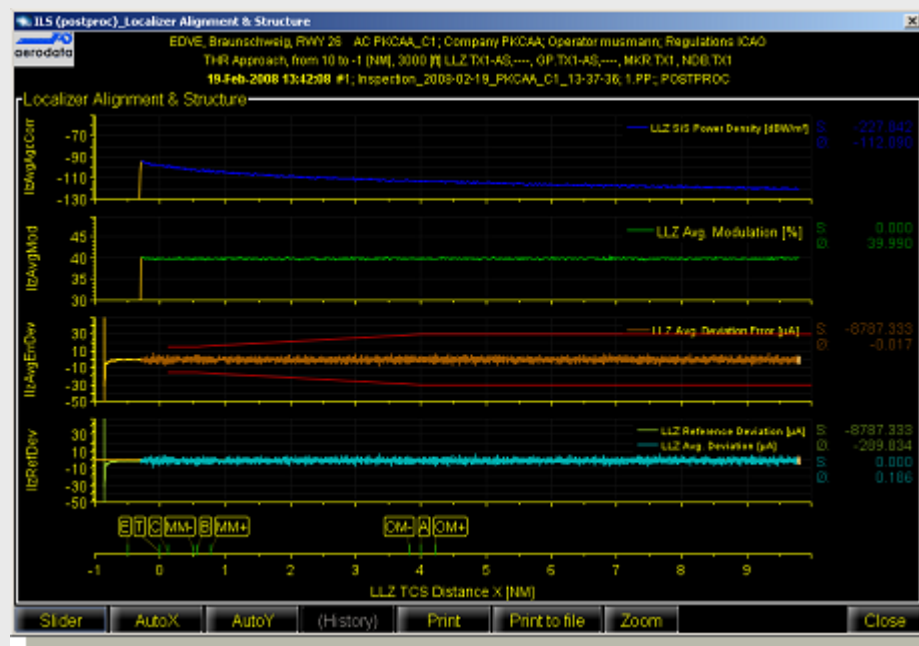
Multi Language GUI

— The AeroFIS multi language GUI

— By just a click of a button the user can switch e.g. to Spanish User Interface:
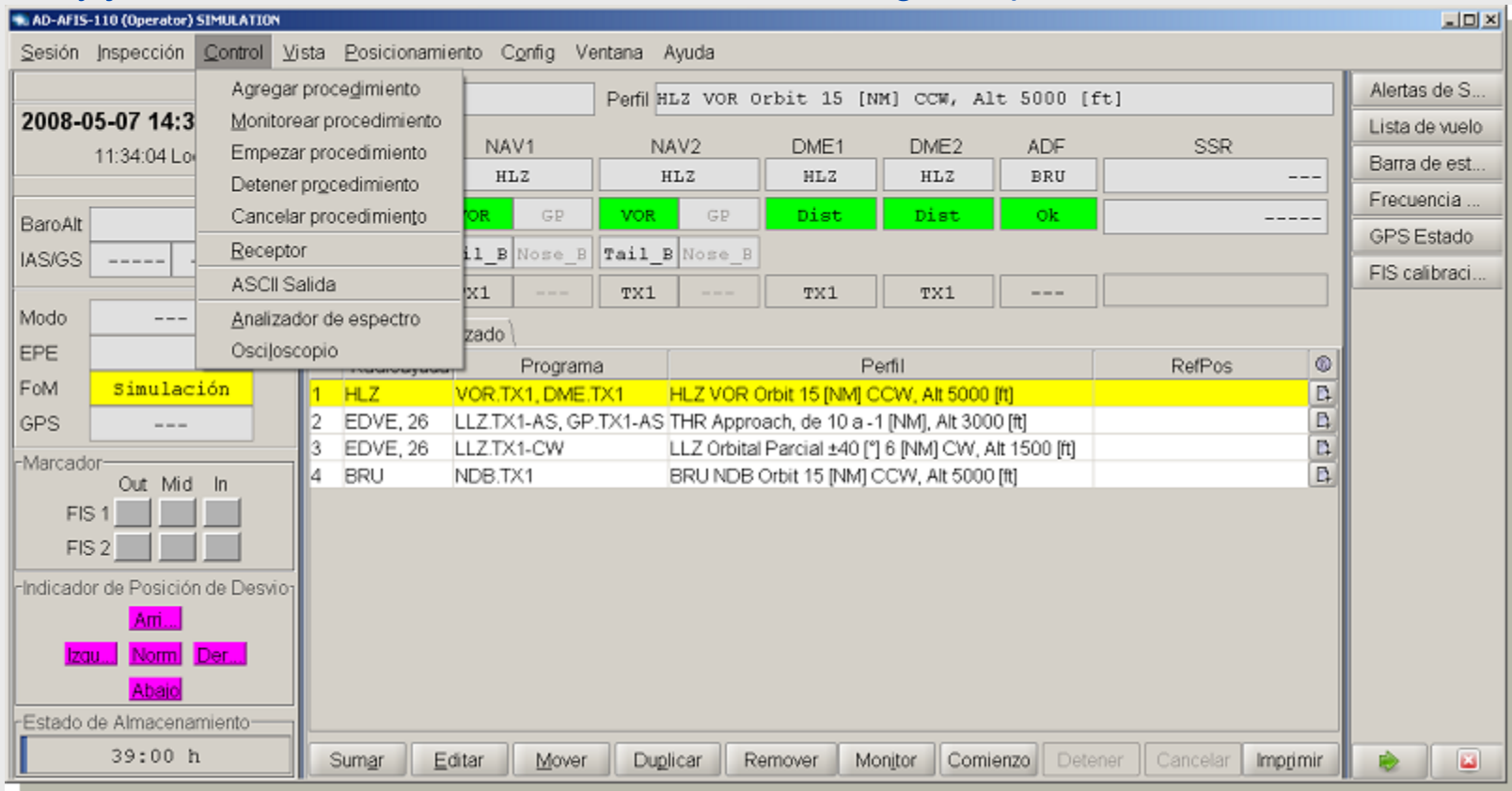
Functionality for Data Analysis

— Multiple parameter plots in one graphic display e.g.: deviation, position reference, course structure

— Highlight Out-of-tolerance conditions via use of different colors

— Simultaneous display of current measurements and archived inspections for easy comparison and drift analysis

— Polar Plots allow easy interpretation during orbital flights

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Procedure Inspection

— Enhanced capabilities for inspection of Instrument Flight Procedures

— SID, STAR, SIAP

— Approach Light Systems
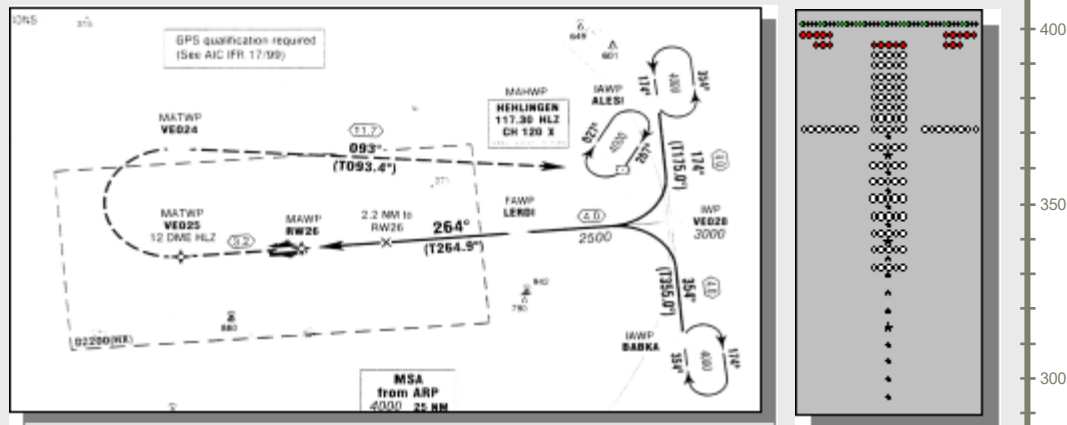
RNAV / RNP procedures

— Enhanced capabilities for inspection of RNAV/RNP procedures

— RNAV GNSS, DME/DME

— GBAS/LAAS,

— SBAS/WAAS
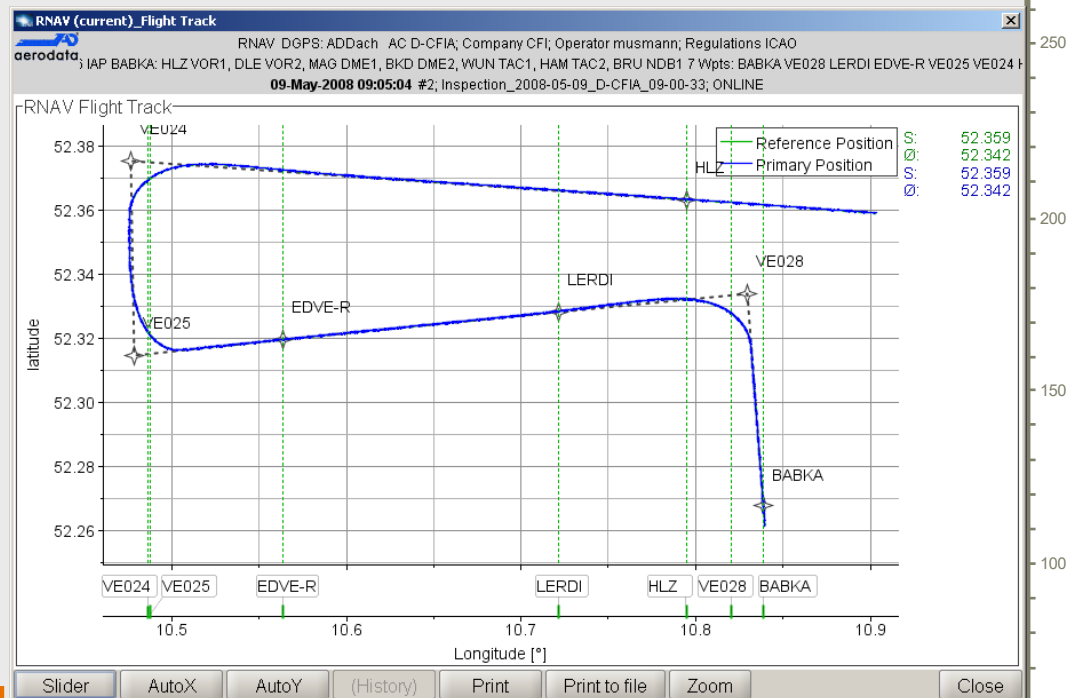
Procedure Inspection

— Allows to check any
procedure: SID, STAR, IAP,
routes or
user-defined sequence of
waypoints

— Definition by List of waypoints

— Check any combination of
ground based navaids
according to system
configuration.
For each navaid define if
evaluation shall be vs.:

   — azimuth (orbit) or

   — distance (radial)

Procedure Inspection

— FMS interface for Navigation Sensor Error (NSE) checks:

    — Absolute NSE, Cross Track NSE, Along Track NSE

— Event Marking of FMS Leg Switching for easy procedure correlation of graphs

— Runway related procedures (SID, IAP) may be displayed x,y,z threshold coordinates
→ easy waypoint alignment checks

Multi DME RNAV Inspection

— Up to 8 parallel channels for DME

— Individual Range Error

— Individual Lock Status
(lock / memory-mode / unlock)
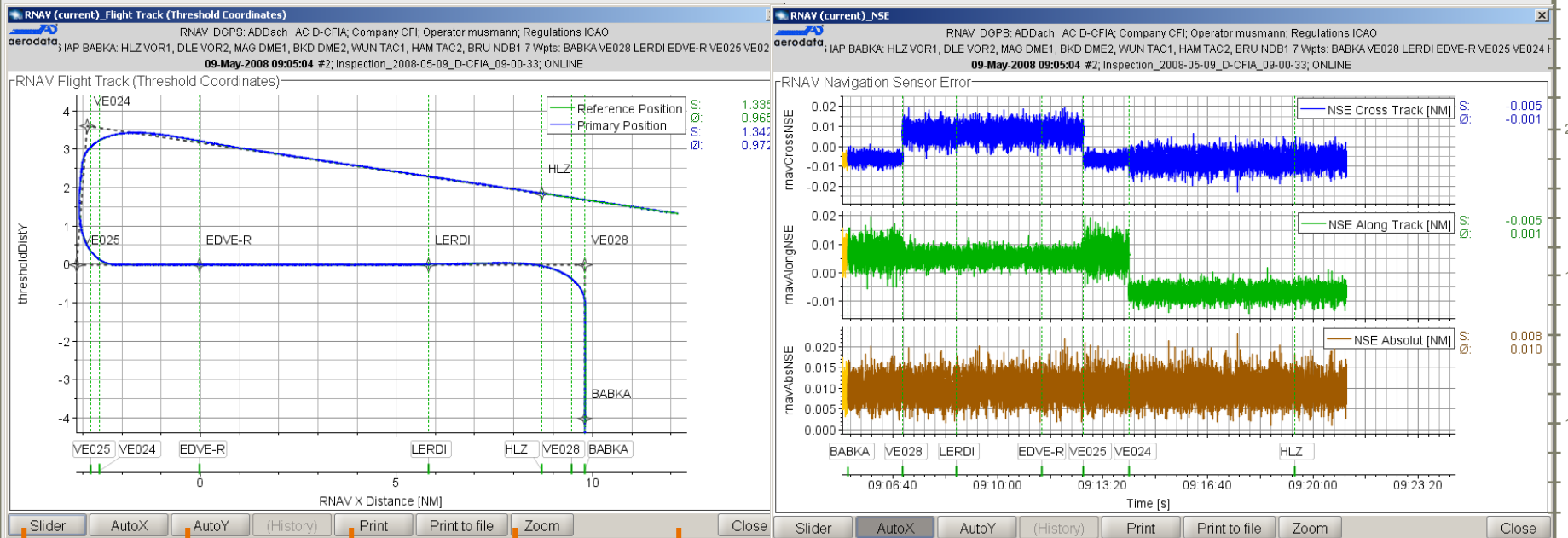
Integrated Jeppesen FliteDeck / JeppView

— Display of Aircraft Position, heading and trace as overlay on various charts

— Full functionality during replay of flight inspection data.

— View Approach Charts

Track of Flight
Inspection Aircraft
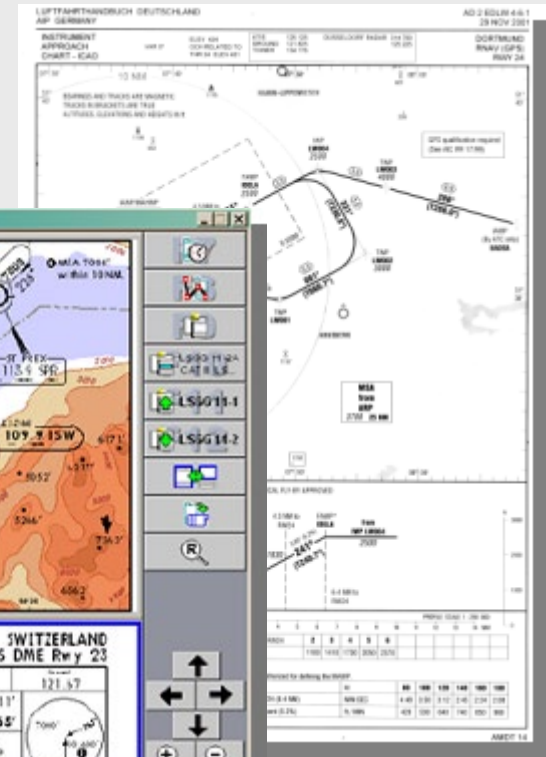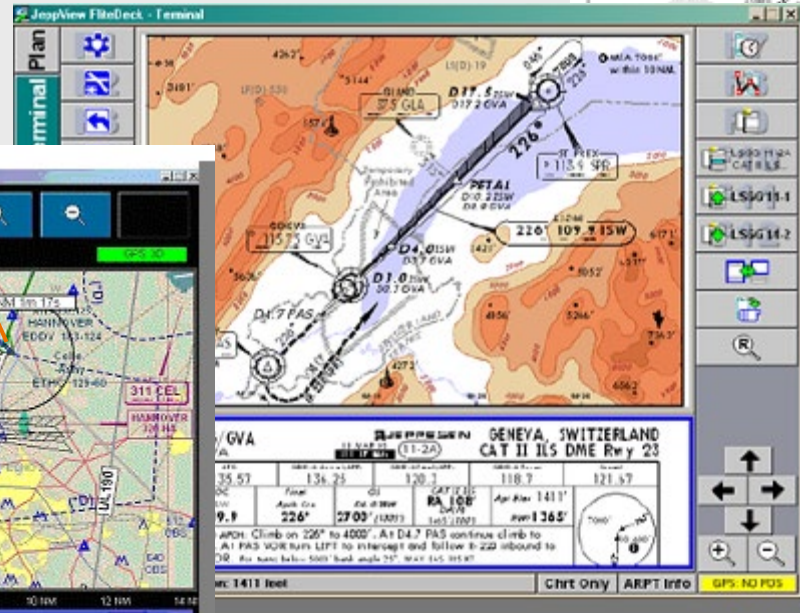
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…Precision in Special Mission